

Appalachian Coalfield Delegation
Position Paper on Sustainable Energy
United Nations Commission on Sustainable Development 15th Session
New York, April 30-May 11, 2007

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Special thanks to the DataCenter-South in Knoxville, TN (USA)

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Introduction

The Coalfield Delegation has returned to the policy session of United Nations Commission on Sustainable Development 15 (UN CSD15) as a member of the NGO (non-governmental organization) major group. We are members of the CitNet (Citizens Network for Sustainable Development) delegation by way of the Appalachian Coalition for Just and Sustainable Communities.¹ The Coalition consists of the Appalachian region's major organizations working to stop the practice of MTR (Mountain Top Removal) mining. These groups are: Appalachian Voices, Clearfork Community Institute, Coal River Mountain Watch, Kentuckians for the Commonwealth, Ohio Valley Environmental Coalition, and Save Our Cumberland Mountains. A growing number of concerned citizens are joining this movement from throughout the United States in support of the Coalfield Delegation's effort to abolish mountaintop removal mining.

Mountaintop Removal Mining: Unsustainable energy threatens to destroy Appalachia and communities around the world



Mountaintop removal mining up close

Consider the story of Debra and Granville Burke. First the blasting above their house wrecked its foundation. Then the floods came. Four times, they wiped out the Burkes' garden, which the family depended on to get through the winter. Finally, on Christmas morning 2002, Debra Burke took her life. In a letter published in a local paper, her husband wrote: "She left eight letters describing how she loved us all but that our burdens were just getting too much to bear. She had begged for TECO to at least replace our garden, but they just turned their back on her. I look back now and think of all the things I wish I had done differently so that she might still be with us, but mostly I wish that TECO had never started mining above our home."

An international problem requires an international solution therefore we seek to join forces with other community-based and civil society organizations to re-orient energy practices at every step specifically extraction. The objective of this position paper is to provide specific policy recommends to the CSD from those most directly impacted by fossil fuel extraction and the human rights violations committed by the coal industry. These violations are not unique to Appalachia, fossil fuel extraction destroys homelands around the globe, however, extraction of fossil fuels is absent from energy debate.

The citizens of Appalachia and fossil fuel extraction regions around the world possess a wealth of experiential knowledge, both qualitative and quantitative. However, regulatory frameworks, decision and policy-making processes of the United Nations are generally dominated by academic, government, business and “expert” perspectives and have largely failed to include the voices of citizens impacted by extraction within the debate on sustainable energy. The United Nations Commission on Sustainable Development must seek to internalize- at every step of the decision making process on sustainable energy - the voices of those who have paid the most significant price for a fossil fuel energy economy; their lived experiences are their expert credentials.

The “partnerships” approach that CSD has advocated since WSSD leave no room for diverse and subjugated perspectives on energy and other sustainability-related issues. For civil society, “partnerships” is a widely recognized code word for privatization whose only meaningful stakeholders are government and business. But there are other locations and sources of important knowledge.

In the past decade, mountaintop removal surface mining has devastated many Appalachian communities. The Appalachian Coalfield Delegation comes before this body to demand that any definition or implementation of sustainable energy oppose so called clean coal or alternative coal technologies. No matter how “cleanly” the coal is burned it still destroys homelands, watersheds, communities and even lives. We share our stories in the first section of this paper and directly through our participation in CSD 15.

To date, the coal mining has destroyed over three-hundred thousand acres of mountain terrain in the state of West Virginia alone, and buried over 1,200 miles of headwater source streams. Indeed, every day in West Virginia, nearly 4 million pounds of explosives are used by the coal industry, equaling that of thirty-two Hiroshima-force atomic bombs per year. As the industry reaps profits, vast acres of moonscape-like craters remain; land uninhabitable and unable to sustain any form of life.

The impacts do not stop at a mountain's edge. Schools, homes, and entire communities located

near mountaintop removal and surface mined areas have become a sacrificial zone for a coal based energy economy.

Unfortunately this problem is not unique to Appalachia. Exploitative energy extraction threatens the livelihood, health and sustainability of communities around the world – from the Niger delta to the Ecuadorian rain forests to indigenous peoples in the Southwest United States. The Appalachian Coalfield Delegation stands in solidarity with the struggles of communities fighting energy injustice in the United States and the world.

The Coalfield Delegation’s mission

1. We seek to expose the true cost of coal on our communities and the human rights violations being committed by the fossil fuel industry locally and globally, with the purpose of stopping current abuse and preventing future harm.
2. We call upon the Commission to recommend an aggressive transition to energy conservation, energy efficiency, and just, renewable energy production. The CFD will work to ensure the UN-CSD recommends policies to prevent further human rights violations and allows for a renewable energy future and jobs.

Summary of Recommendations for CSD 15

Our lived experience and expertise forms the basis for our recommendations to the UN Commission on Sustainable Development. In the second part of this paper we elaborate on the specific recommendations that we believe will help put the United States and the world on the path to a more sustainable energy future. These recommendations include:

- **Oppose mountaintop removal and other similarly destructive extraction processes** – Stop all forms of radical strip mining, such as Mountain Top Removal, and other destructive extraction process.
- **Adopt definitions for a common language of sustainable energy** - UN CSD15 needs to clarify definitions of sustainable energy, particularly to exclude unsustainable extraction practices and to fully assess all potential impacts before adoption of new fossil-fuel based technologies.
- **Promote binding commitments rather than voluntary partnerships as a solution** - Relying on

“good business” has failed to halt the destruction of communities and has not adequately spurred development of renewable energy solutions.

- Encourage rapid renewable energy development and conservation** – Utilize policies such as implementation of renewable portfolio standards and removal of subsidies for fossil fuels. These policies need to be consistently supported by the international finance institutions.

- Oppose non-renewable energy development** – such as so-called “clean coal” technologies that are used to justify continued dependence of fossil fuels, with the exception of technologies that reduce air pollution during the transition period to reliance on renewable energy sources.

The Appalachian Experience: Dying for coal

“Nearly a thousand miles separate the coalfields of West Virginia from the city of New Orleans and Gulf Coast [ravaged by Hurricane Katrina in August 2005], yet they are a lot closer than that. The connection is carbon.” David Orr.

Recent Inter-governmental Panel on Climate Change reports highlight the narrowing window of time available for the world to act to mitigate the most catastrophic impacts of climate change. They warn that poor communities around the world and particularly in the global south will likely face the most severe impacts. Moreover, they reflect increasing international scientific consensus that human activity, particularly our burning of fossil fuel energy, has contributed if not driven recent and pending climate shifts.

What these reports, and the discussion of climate change in general, fail to acknowledge is that the roots of climate change can be traced back to the widespread destructive impacts of fossil fuel extraction. The human and ecological communities that have had the misfortune to hold fossil fuels beneath their surface have long been ground zero for the extreme sacrifices we have been willing to make for fossil energy. If we had been paying attention, their destruction should have been the warning that fossil fuel energy is not sustainable energy. It is time to pay attention. Our thirst for energy and the holy grail of economic growth cannot come at the expense of the very systems that sustain us in the first place. Efforts to curb climate-changing emissions cannot be de-linked from the impacts that proposed solutions have on communities.

There are many impediments to understanding the context of coal and climate. The lack of spatial feedbacks allows policy-makers in wealthy nations to determine energy policy without a care for those making the sacrifice at the source of extraction. Although practiced for more than two decades, mountain top removal coal mining is just beginning to appear in popular media, with features in publication like *National Geographic*, *Vanity Fair* and *Oprah Magazine*.ⁱⁱ It nevertheless remains marginalized in the energy debate, and was named one of the top “censored stories” of the year in 2006 by Project Censored.ⁱⁱⁱ

In the United States, the peoples and land of Appalachia have suffered the impacts of coal mining for more than a century. This exploitation has escalated with the advent of mountaintop removal mining. The Appalachian basin traditionally led the country in coal production and, until 1970, produced 70% or more of all coal produced in the nation. Between 1970 and 1996, that percentage declined to about 43%, and has since declined to about 35%, as a result of declining Appalachian production as well as increased production in the Western United States.^{iv} For the first time in forty years, between 2001 and 2005 the Appalachian Region experienced four consecutive years of coal production of less than 400 million short tons.^v

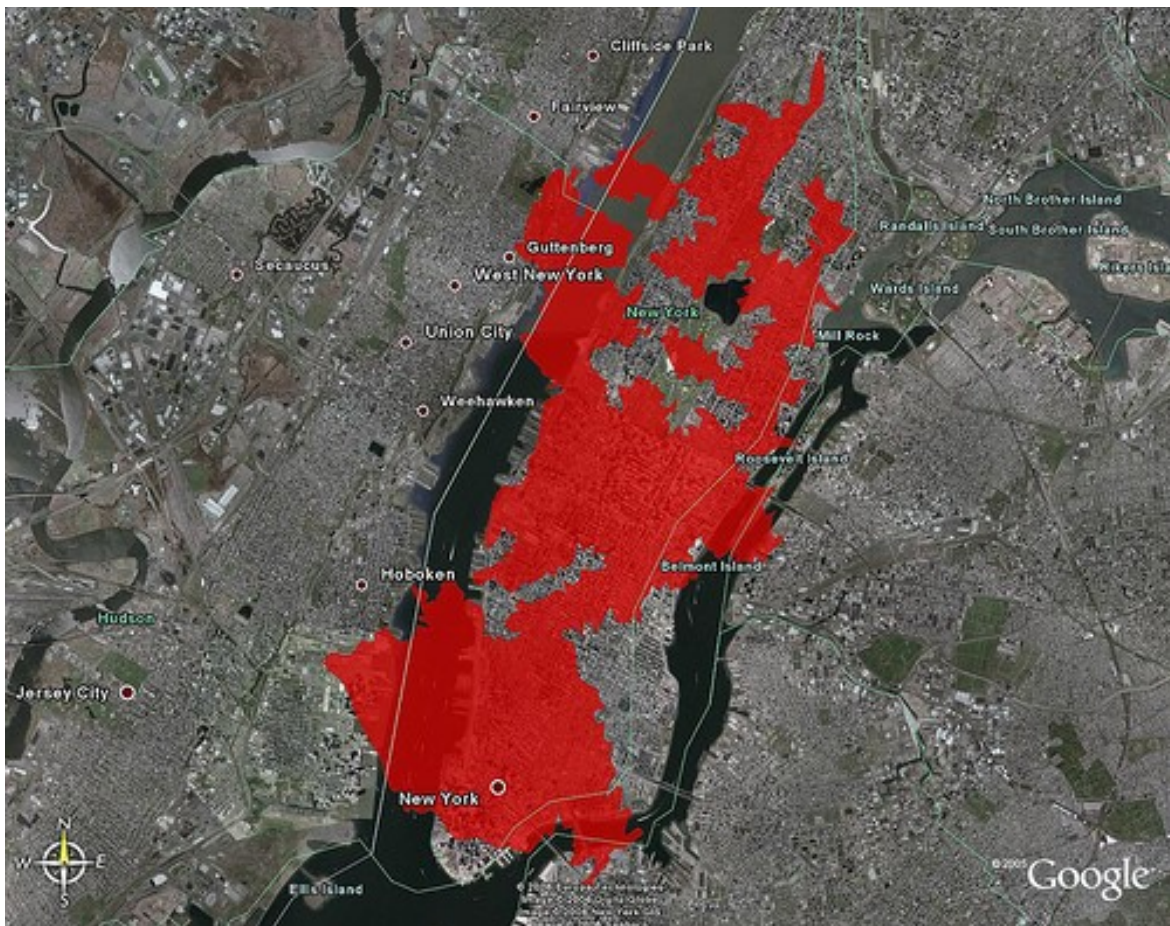
Declining production in Appalachia is linked to “reserve degradation,” meaning that the most easily accessible seams of high-grade coal in the region have been mined out over the previous century, leaving the relatively thinner seams that are often too expensive to extract with traditional underground mining techniques. The response has been radical strip mining.

A combination of high-tech earthmoving machinery, a weakening of federal clean water regulations, and an absence of just and effective international energy policy, have made it possible to move the mountains in order to get at the thinner remaining coal seams. In 2002, the Bush Administration and Army Corps of Engineers finalized a rule change to the U.S. Clean Water Protection Act, which stated that the waste from mountaintop removal sites could be classified as legal “fill material” and thus eligible to be dumped in adjoining valleys. Mountain top removal coal mining has dramatically accelerated the pace of environmental, economic and cultural destruction in the communities of Appalachia.

What is Mountaintop Removal Mining?

Mountaintop removal mining is a form of strip mining in which coal companies use explosives to blast as much as 800 to 1000 feet off the tops of mountains order to reach the coal seams that lie underneath. The resulting millions of tons of waste rock, dirt, and vegetation are then dumped into surrounding valleys, burying miles and miles of streams under piles of rubble hundreds of feet deep. Mountaintop removal mining harms not only aquatic ecosystems and water quality, but also destroys hundreds of acres of healthy forests and fish and wildlife habitat, including habitat of threatened and endangered species, when the tops of mountains are blasted away.

This practice also devastates Appalachian communities and cultures that have existed in these mountains for hundreds of years. Residents of the surrounding communities are threatened by rock slides, catastrophic floods, poisoned water supplies, constant blasting, destroyed property, and lost culture. As a result, many have been fighting the practice for years. Mountaintop removal mining takes place in many states in the Appalachian region, including West Virginia, Kentucky, southern Virginia, and eastern Tennessee. *(taken from Stop Mountaintop Removal coalition website, www.stopmountaintopremoval.org)*



For an idea of the size, this map shows the Hobet Strip Mine overlaid on New York City.

The Impacts of Mountaintop Removal mining

Globally, the root of climate change lies deeply embedded amidst the communities in which fossil fuels are extracted. In terms of the impacts on their communities, those living in closest proximity to fossil fuel extraction often pay a significant and “invisible” price for a carbon-based energy market. Yet, this true cost of coal – that begins with extraction – is almost too conveniently absent from the national debate on climate legislation. From the coalmines to the climate, carbon is dirty, expensive and dangerous.^{vi}

"We eat it, we breathe it, we live it every day. A day never goes by when you don't hear something's been torn up." Joan Linville, Bim, West Virginia



Another mountain lost to radical strip mining

Public Health Impacts

Donetta Blankenship lives in the coalfields of West Virginia where their water has been contaminated by coal sludge. Before Donetta and her family moved to the coalfield area, they had no health problems. Since moving there, Donetta has been hospitalized for liver failure twice in the last year. Whenever anyone in the family showers, they get a headache from the rotten smell from the water. Donetta raises three children, two of whom have developed asthma. Her daughter has stomach problems; her son has bumps all over his back and refuses to bathe in the contaminated water that makes it worse. He also has trouble sleeping at night, worrying that the

sludge impoundment above their home will give way. Donetta stays because she can't afford to move her family elsewhere.

Back in 2004, Ed Wiley a 47-year-old West Virginian who spent years working on strip mines, was called by the school to come pick up his granddaughter Kayla because she was sick. "She had a real bad color to her," Wiley said. The next day the school called again because Kayla was ill, and the day after that. Wiley started flipping through the sign-out book and found that 15 to 20 students went home sick every day because of asthma problems, severe headaches, blisters in their mouths, constant runny noses, and nausea. In May 2005, West Virginia activist Bo Webb found that 80 percent of parents said their children came home from school with a variety of illnesses. The school, a small brick building, sits almost directly beneath a Massey Energy subsidiary's processing plant where coal is washed and stored. Coal dust settles like pollen over the playground. Nearly 3 billion gallons of coal slurry, which contains extremely high levels of mercury, cadmium, and nickel, are stored behind a 385-foot-high earthen dam right above the school.

Not surprisingly, the environmental degradation wreaked by mountaintop removal is mirrored in its impacts on human health. Surface mining, and particularly large-scale mountain top removal mining, have brought devastating health impacts of coal mining out from underground, with impacts ranging from increased asthma rates related to coal dust to cancer clusters linked to mine-related toxins in local water supplies.

In order to blow up the mountains, coal mine companies use a mixture of ammonium nitrate and diesel fuel – with each detonation 10 times as powerful as the blast Timothy McVeigh used to level a federal government building in Oklahoma City.^{vii} Thousands of blasts go off each day across central Appalachia, and every day in West Virginia, three million pounds of ammonium-nitrate and diesel fuel are used. According to the Institute of Makers of Explosives, the coal industry consumed 67 percent of the explosives purchased nationwide in 2003, the most recent year for which information is available. These blasts release untold quantities of coal and silica dust into the air, expelling coal dust and fly-rock into the air, which can then disturb or settle onto private property nearby. This dust contains sulfur compounds, which corrodes structures and tombstones and is a health hazard. Coal smoke contains fine particulates and gases such as sulfur dioxide and nitrogen dioxide that are known human health hazards.

Mountaintop removal coal mining also requires the building of giant sludge dams, which can hold billions of gallons of toxic coal sludge behind un-reinforced earthen dams. These slurries are necessary because, unlike coal from underground mines, coal from mountaintop removal requires extensive washing to separate the coal from debris and residues from the blasting of bedrock. As of 2000, there were more than 600 sludge impoundments across the Appalachian coalfields.

Chemical analyses of this sludge indicate it contains large amounts of toxics such as arsenic, mercury, lead, copper, and chromium that eventually seep into the drinking water supply of nearby communities. Most local communities are dependent on groundwater, which could be fouled by mining waste. A forthcoming EPA report released to the national environmental group Earth Justice indicates that groundwater contaminated with coal ash leads to a cancer risk as high as 1 in 100 – 10,000 times higher than previous EPA estimates.^{viii} These toxics have also leaked into the water systems that feed the Ohio and Mississippi Rivers, threatening water systems all the way to the Gulf of Mexico.^{ix}

Compounding the slow and insidious threats of toxins seeping into local and regional water supplies, is the threat of a dam break. In the winter of 1972, a West Virginia coal-waste structure collapsed and spilled 130 million gallons of sludge into Buffalo Creek. The resulting flood took the lives of 125 people, injured another 1,000 and rendered 4,000 people homeless. More recently, in 2000 in Kentucky, the bottom of a waste pond collapsed, releasing 250 million gallons of slurry – 25 times the amount of oil spilled in the Exxon Valdez disaster. Although no lives were lost, 20 miles of stream valley were declared an aquatic dead zone, and water systems in ten counties had to be shut down. The U.S. Environmental Protection Agency called the Kentucky dam breach the worst environmental disaster in the history of the Southeast.

At present, there are 45 impoundments in West Virginia alone that are considered at high risk for failure, and 32 are at moderate risk. One of the largest waste basins, the Brushy Fork slurry lagoon, owned by Massey Energy, impounds some eight billion gallons of sludge. By some accounts, its failure could send a wave of sludge 25 feet high over the town of Whiteville three miles downstream. Another Massey lagoon is just 400 yards above the Marsh Fork elementary school. Respiratory illness was found prevalent at the school in 2006 and three teachers and a 17-year-old former student have died of cancer. The school sits next to a giant coal mine and in the shadow of a huge coal-loading and coal dust-producing silo, near pools of toxic chemicals as well as the huge lake of toxic sludge.

To illustrate the extent to which MTR is not just an “environmental problem” experienced in mining communities, power plants in the state of North Carolina consume large quantities of Appalachia’s coal. creates a less discriminating form of externalized public health cost. Health effects that result from air pollution from coal-fired power plants range from premature death in adults (3,000 cases estimated), respiratory hospital admissions (2,000 cases), cardiovascular hospital admissions (2,000 cases), new cases of chronic bronchitis (2,500 cases) and asthma attacks (200,000 cases). It is also estimated that 500,000 missed work days are directly attributed to air pollution.^x These figures do not include the effects attributed to “summer smog season” ground level ozone pollution. Air pollution

is the third leading cause of death in the state.^{xi}

Environmental Impacts

My name's Maria Gunnoe. I'm from Bob White on Route 85 in Boone County, West Virginia, and mountaintop removal moved into my backyard in 2000. Since then, I've lost two access bridges, the use of my water, about five acres of land. There's 13 landslides between me and the toe of the landfill behind me. Each time it rains these landslides move. All depending on how much rain we get, sometimes they can move as much as five feet in one day. You know that eventually they're gonna wash out, and when they do, I will have another major washout there at my home. Since 2000, I've been flooded seven times. One time I was flooded with no rain... blue skies and just barely any clouds at all in the sky... and the stream coming through my property just came up. It came up about three feet. By the time I called the DEP [West Virginia Department of Environmental Protection] and made the proper complaints and reports, the water had subsided. The DEP said there was no evidence of what had happened and therefore it was OK.

Mountaintop Removal mining has to date leveled at least 474 mountains in the Appalachian bioregion, buried thousands of miles of streams and devastated many rural communities. And if the sheer magnitude of exploitation is not enough, even more troubling is the fact that it is occurring right at the heart of one of the main hotspots of biological diversity in the United States. According to the Nature Conservancy, the mountain region including southwest Virginia, southern West Virginia, eastern Kentucky and northeastern Tennessee contains some of the highest levels of biological diversity in the nation. This, as it turns out, is precisely the region where mountaintop removal is spreading the fastest. Already, more than a quarter of the mountains in the southern West Virginia coalfields have been leveled.

More than 7 percent of Appalachian forests were cut down and more than 1,200 miles of streams across the region were buried or polluted between 1985 and 2001. Mountaintop removal mining, if it continues unabated, is projected to result in the loss of more than 1.4 million acres by the end of the decade—an area the size of Delaware—with a concomitant severe impacts on fish, wildlife, and bird species, not to mention a devastating effect on many neighboring communities.

Studies have found that the natural return of forests to mountaintop mines reclaimed with grasses under hay and pasture or wildlife post-mining land uses occurs very slowly if at all. Full reforestation across a large mine site in such cases may not occur for hundreds of years. Although MTR sites are required to be reclaimed after mining is complete, reclamation has traditionally focused on stabilizing rock and controlling erosion, but not reforesting the area with trees. Quick-growing, non-native grasses,

planted to provide vegetation on a site, compete with tree seedlings, and trees have difficulty establishing root systems in compacted backfill. Consequently, biodiversity suffers in a region of the United States with numerous endemic species. The inability of trees to develop strong root systems leaves the resulting slopes vulnerable to erosion and flooding, particularly (and ironically) in the face of increasing high intensity storms generated by climate change.

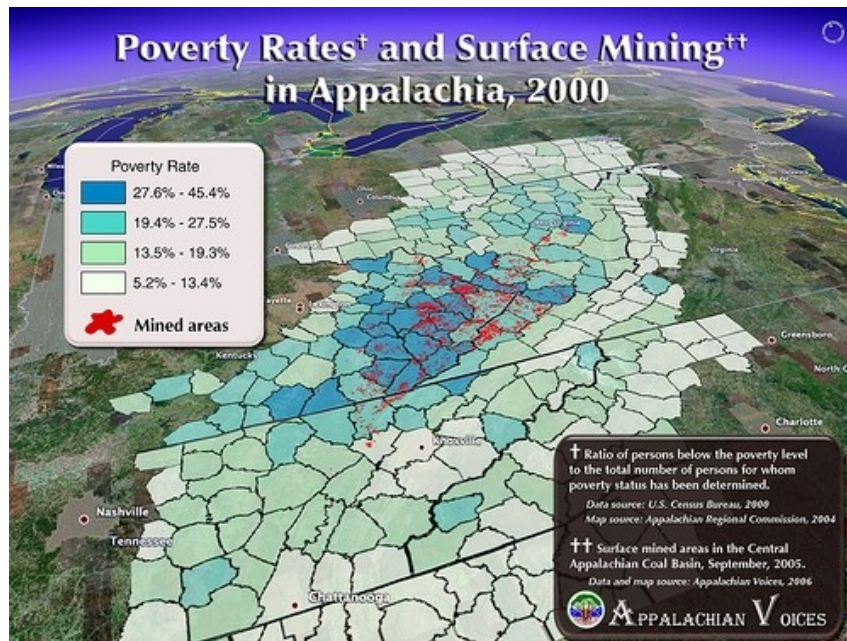
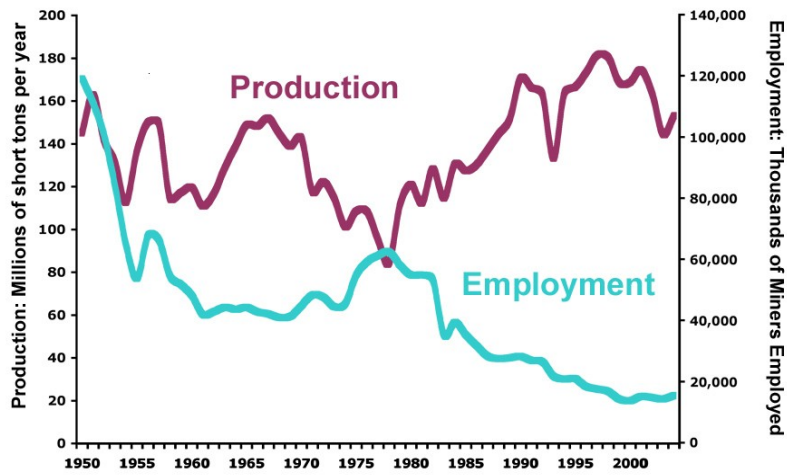
Perhaps the most dangerous and damaging features left behind by mountaintop removal coal mining are the mountain-topped valley fills that have buried valley streams and watersheds under millions of tons of broken rock. The potential for these fills to come tumbling down the valleys in giant landslides is, as one Kentucky attorney puts it, "A time bomb waiting to happen." In McRoberts, Kentucky, for example, a region prone to flash floods, a valley fill left nothing to hold back the rain and a once-forested watershed had been turned into an enormous funnel. In 2002, three so-called hundred-year floods happened in 10 days.

Economic Impacts

"I was blinded by the \$13.50 an hour. I didn't realize I was setting up something that could one day kill my granddaughter. I tell you, they keep it up, there will be no more Appalachia. They're putting a price on their own children's heads. Someone's got to stand up for these kids. It's about what's right." Ed Wiley, Rock Creek, West Virginia

Activist Teri Blanton, whose father and brother were Harlan County miners, has spent many years trying to understand the patterns of oppression that hold the Harlan County high-school graduation rate at 59 percent and the median household income at \$18,665. "We were fueling the whole United States with coal," she said of the last hundred years in eastern Kentucky. "And yet our pay was lousy, our education was lousy, and they destroyed our environment. As long as you have a polluted community, no other industry is going to locate there. Did they keep us uneducated because it was easier to control us then? Did they keep other industries out because then they can keep our wages low? Was it all by design?"

Coal Production and Employment in West Virginia, 1950-2005



In a pattern recognizable throughout the world, the regions that are rich in coal are among the

poorest in the country. Median household income in mining counties in Appalachia is in the bottom 20 percent of counties nationally. Almost 50 percent of the mining counties in central Appalachia have median household incomes \$17,000 below the national median. In general, the greater the value of coal produced in an Appalachian county the lower the median household income was in 2003.^{xii} The resources extracted from these impoverished rural communities are in turn used to power cities across the East Coast. In Kentucky, 80 percent of the harvested coal is sold and shipped to 22 other states.

In the past, rural Appalachian communities were dependent on coal mining for jobs, and often dependent on the coal companies for virtually all economic activity. The advent of mountaintop removal mining has shifted the equation. Mountaintop removal is a mining technique designed, from the very start, to take the labor force out of the mining operation. What used to take hundreds of miners employed for decades, now takes a half dozen heavy equipment operators and blasting technicians a couple of years. According to the bureau of labor statistics, in the early 1950's there were between 125,000 and 145,000 miners employed in West Virginia; in 2004 there were just over 16,000. During that time, coal production has increased. This decline in the workforce continues today. Draglines and other advances in technology resulted in a 29% decline in mining jobs during 1987 and 1997, while coal production rose 32 percent during the same period

All of this translates into profits for mining companies, all of which are headquartered outside of the region. Massey Energy, for example, is headquartered in Richmond, Virginia. As of January 31, 2007, Massey Energy operated 33 underground mines and 11 surface mines in West Virginia, Kentucky, and Virginia. In 2006 Massey earned \$2.14 billion in revenue, and CEO Don Blankenship received more than \$10 million in compensation. Arch Coal, based in St. Louis, operates 21 mines in Appalachia and the West. In 2006, Arch brought in \$2.5 billion in revenue. Peabody, also based in St. Louis, operates 40 coal mines in the U.S., Australia and Venezuela, and brought in \$5.22 billion in revenues in 2006. A relatively new company, founded in 2002, Alpha Resources, has 27 active "surface" mines in Appalachia, as well as underground mines and road building operations to facilitate moving the coal out. Alpha is based in Abingdon, Virginia and brought in \$1.96 billion in 2006 – all based on Appalachian coal. Despite these profits, particularly the wealth accruing to top executives, coal companies are quick to label property damage resulting from their activities "an act of God," thus avoiding any financial responsibility to the people who suffer the consequences.

To add insult to injury, in addition to the loss of jobs and exportation of profits, mountaintop removal effectively destroys the potential for many alternative economic growth options. In North Carolina and Tennessee mountain counties without coal mining, tourism income far outpaces income

the coal income in coal counties – an option unavailable to counties whose mountains and streams have been destroyed. Traditional wild ginseng gathering and small-scale agriculture are also obliterated when mountains are blown up. Not only must mountaintop removal be stopped, aggressive alternative, sustainable economic development options must be pursued. People of the coalfields need alternative means of livelihood that do not leave them dependent on the very coal companies that are destroying their communities, health and the land they need for long-term survival.

The Battle of Blair Mountain was fought in Logan County, West Virginia, in 1921, and pitted coal industry forces against the United Mine Workers of American miners, who were attempting to unionize the southern West Virginia coal fields. Fifteen thousand citizens fought for five days, 20-40 people were killed and many more wounded. It was the largest insurrection in the United States since the Civil War. This battle ended only when the governor of West Virginia called in federal troops, and the miners had to disband. Over the last ten years, attempts have been made by preservationists to have the 1600-acre battle site declared a National Historical Site. The coal industry has strongly opposed this as they have plans to blow up the mountain using the mountaintop removal technique, which of course would destroy all the evidence of the battle.

The economic, social, and environmental injustices associated with energy production and consumption are not a recent phenomenon in the U.S. As is the case in other fossil fuel production areas throughout the world, struggle and violence are a way of life. However, one major, and perhaps ironic difference is that the violence experienced in the Appalachian coalfields is perpetrated with the full support of a government that prides itself as the world's model democracy. As one coalfield resident remarked at last year's CSD in reference to the claim of U.S. "energy democracy," "I'd like to know what part of the United States they're talking about." Energy democracy is synonymous with just and sustainable energy, thus linking the important aspects of production, consumption, and distribution. This is in the spirit of WSSD's overarching theme of sustainable production and consumption.

Translating our Lived Experience in Sustainable Energy Policy: Our Recommendations to CSD 15

The primary goal of the Coalfield delegation is to stop Mountaintop Removal mining – our families, our communities, our land and our livelihood are all being destroyed by this form of radical strip mining and it must stop. At the same time, we believe our experience gives us special insight into the broader impacts of fossil fuel energy, as well as basis for deep-felt empathy and solidarity with

communities around the world that are experiencing similar exploitation for energy. We see the direct linkage to the vast problem of global warming in our destroyed mountains and communities. In the following section we describe our core policy recommendations to the CSD15.

Adopt Definitions & Principles for Sustainable Energy

We are faced with a sustainable energy paradox. An emphasis on the 'equitable' delivery of carbon-based energy to under-developed nations has been inherent to the evolving notion of “sustainability” as formally introduced in the 1987 Brundtland Report. Times have changed. The Brundtland Report contained only a few pages on global climate change and the emphasis on sustaining development, not sustainability, has led us down a dangerous path.^{xiii}

First and foremost, there needs to be a clarification of the assumptions and terms used by CSD to define sustainable energy. The phrase “energy for sustainable development” in many cases is used to support practices that are contradictory to sustainability, especially as used by the United States to excuse further investment and reliance on fossil fuel energy. “Modern energy access” is an unacceptable term when used as an excuse for expanding large-scale unsustainable energy sectors.^{xiv}

Poor communities, particularly in the Global South, have a right to energy access that is not based on destruction and exploitation. No community should face the choice of energy to meet basic needs versus destruction of the very means of survival to obtain that energy. Moreover, no community should face the dilemma of obtaining access to energy at the expense of contributing to long-term climate change. It is a particularly cruel irony that the very communities that lack access to reliable energy are often the same communities that are most negatively impacted by energy extraction and processing and will likely face the most severe impacts of climate change. Access to modern energy needs to thus be redefined to explicitly focus on utilization of renewable sources that provide benefits throughout their lifecycle and explicitly avoids use of fossil fuels.^{xv}

One commonly used discussion of sustainable energy comes from former World Bank economist, Herman Daly. He offered principles for the sustainable use of natural resources that apply particularly well to energy.^{xvi} Resources are categorized as either renewable or non-renewable. Non-renewable resources (such as coal and oil), he argues, should be depleted at a rate equal to the rate of creation of renewable substitutes. Turning to renewable resources, two axioms govern their use: (1) harvest rates do not exceed regeneration rates, and (2) waste emissions do not exceed the renewable assimilative capacity of the local environment.

The rapid draw down of non-renewable fossil fuel resources violates Daly's first principle. We draw on our lived experience in the coalfields of Appalachia as empirical evidence of this unsustainable relationship. In working toward an improved definition of sustainable energy we would qualify Daly's principles in several ways:

1. "Creation" should be defined to include the widespread and systematic implementation of renewable substitutes.^{xvii} Having the technologies theoretically worked out, or even in limited use, is not a guarantee of their actual widespread use and benefit.
2. We must account for not only the sinks and their "assimilative capacities" but also for the sources of energy supply. Here we refer to the damage caused by extraction of fossil fuel resources such as coal and oil.^{xviii} In this principle, Daly does not make clear the ecological cost of the extreme destruction that takes place with MTR, tar sands extraction, and other types of fossil fuel source draw down. In other words, the damage from mining further diminishes the environment's assimilative capacities at both the source and sink. Waste emissions must be counted not only at the end use but at the time of extraction, and analysis needs to include not only emissions but also toxics, and other forms of environmental destruction.^{xix}
3. Use of a non-renewable resource simply "because it is there," is not a logic that sufficiently justifies its depletion. Therefore, philosophically, we would entirely strike Daly's phrase "should be depleted." The earth should not be depleted, period. In this regard, a change in mind-set is needed.
4. Daly's axioms were written nearly two decades ago. Now, we would add one final qualification to his second point — that waste emissions do not exceed the renewable assimilative capacity of the local, here adding "and *global*" environment. Here, we bring in the great concern of many—global climate change, which is not a spatially confined environmental problem.
5. We would add a feedback loop to link the use of non-renewable resources (e.g. coal) to local and global assimilative environments. Daly's framework seems to unnaturally separate renewable and non-renewable resources.

Neither Daly's framework nor much of the "clean coal" discussion adequately addresses the serious environmental and human costs of fossil energy extraction. Coal is dirty when it is mined. Its

devastating impacts on watersheds and biodiversity extend far beyond the locations of mining and drilling. Furthermore, the damage is permanent for all meaningful human time scales. Its cost to communities and their residents in the mining areas reach far beyond the capability of any currency-based value elicitation method to quantify and instead into the realm of moral, ethical, and spiritual.

We therefore define sustainable energy as: energy produced from renewable sources such as wind, sun (including biofuels), water, and the earth's geothermal energy to meet basic needs in such a way that does not diminish long term ability to continue its production, and that does not adversely impact the environment, health, safety and well-being of present and future generations at any point in its development or use. Renewable energy, in our view, is guided by the notion that unlimited expansion of production is not possible, limited by the physical properties of the earth, and by an ethic of energy equity. By extension of this logic, consumption is bound by the same system, making it necessary to distribute energy resources in equitable and democratic ways, and to use them judiciously. Local conditions should be a key determinant of energy portfolios so long as wasted consumption (i.e. over consumption) is not considered to be "necessary" or "normal." Finally, societal benefits associated with energy production should accrue first to local communities at the production source.

Oppose mountaintop removal and other similarly destructive extraction processes

Our stories and the collected statistics of mountaintop removal coal mining reveal that modern coal mining has become exponentially more destructive to people, communities and the environment. Likewise, communities around the world have face similarly devastating impacts of fossil fuel extraction. We stand in solidarity with these communities based on our lived experience of coal mining. We believe that energy in the modern world does not and should not come at the expense of any community, let alone the poor. This is a human rights issue.

Binding Commitments, not voluntary standards as a solution

We are critical of "voluntary measures" that have long been favored by business. As the influential Stern Review stated, "climate change presents a unique challenge for economics: it is the greatest and widest-ranging market failure ever seen."^{xx} Market failures are rarely solved through voluntary action on the part of private actors. Power plants emit 40% of total U.S. carbon dioxide pollution, the primary global warming pollutant.^{xxi} Although coal-fired power plants account for just over half of the electricity produced in the U.S. each year, they have been responsible for over 83% of

the CO₂ pollution since 1990.^{xxii} Coal-fired power plants have the highest output rate of CO₂ per unit of electricity among all fossil fuels.^{xxiii xxiv} Unfortunately, coal production in the United States reached a record level in 2005, with production up by 1.7 percent and consumption in the electricity sector rising by 2.1 percent.^{xxv}

The chief executives of several major utilities in the United States have publicly voiced support for emissions regulation schemes while at the same time the corporations they lead have aggressively pursued permitting and construction of new pulverized coal generation plants. According to the U.S. Department of Energy, there are currently 159 new and planned coal-fired power plants scheduled to come online in upcoming years in the United States, accounting for just over half of all new planned generating capacity.^{xxvi} With the rising tide of global warming, it is time for rigorous and time bound mandatory standards that are costly for the polluter.

Legal rights of local and regional governments (e.g. states, provinces, and communities) must be adequate to the task of protecting against the undesirable environmental and social effects of unsustainable energy.

Encourage rapid renewable energy development and conservation

This is the paradigm shift in energy that is called for in the NGO Major Group paper (i.e. the CURES paper). Based on our above discussion of sustainable energy, we call for the implementation of aggressive RPS (renewable portfolio standard) on national and sub-national scales. Wind, solar, geothermal, micro-hydro and biofuels and other forms of renewable energy are technologically capable of providing safe and sustainable energy, as well as supporting local economic activity. The widespread savings of energy is central to this goal, so we call for a serious effort to establish and implement “upstream” conservation measures.

We believe that a set of social justice/human rights and environmental sustainability principles needs to govern all energy development, including the increasingly popular biofuels. Fuels for transportation, for example, must not come at the expense of community access to food, land tenure or biodiversity. In addition, “net energy” (also referred to as EROEI-energy returned on energy invested), must be clearly positive. We see the development of such principles as a useful topic heading into the 2008-2009 thematic cycle of CSD.

To remove structural barriers in renewable energy development, national governments need to create policy incentives that grow the renewable energy sector and associated industries, and that force energy producers and extraction companies to take into account costs that are traditionally born by

communities on the global and local level. International funding institutions should orient their policies and funding priorities to support a transition to significant cost internalization and subsidy shifts to renewable energy sectors.

"The biggest threat to a rational global warming policy is we delay acting two to four years and utilities build a lot of new sources that make it impossible to take action." Bruce Nilles, Sierra Club energy analyst.

Using the SPAC framework to evaluate energy policy positions, we argue that opportunity costs of energy infrastructure development based on a continuing, even expanded reliance on coal are costly and dangerous. In the U.S. alone, electric utilities' capitalization of \$141 billion (USD) for proposed new coal-fired power plants, plus another \$100 billion for maintenance and operation threaten to lock the United States into a coal-dependent electricity generation infrastructure that produces far more carbon dioxide emissions than any alternative. This investment would be better leveraged for a mass conversion to renewable sources.

Oppose non-renewable energy development

"Clean coal" is dirty at extraction – it is destructive to the environment, public health and cultural diversity - therefore there can be no such thing as clean coal.^{xxvii} It is akin to digging up your foundation to repair the roof. It is time that we paid attention to the lessons of fossil fuel driven climate change and account for all impacts of energy throughout its life cycle, proving that each step is sustainable before embracing widespread utilization. We advocate for a phase-out of all coal use.

Although we recognize that coal may be a needed transition fuel, we caution that its use must be limited to the maximum extent possible. Geologic sequestration of carbon dioxide emissions remains highly speculative, and presents the possibility of massive and catastrophic releases at a future date. It is literally trying to bury a problem and leaving the potentially much higher consequences for our children and grandchildren to deal with. Likewise, coal to liquids technology is unproven and has the potential for disastrous consequences.

The path to reduced CO₂ emissions is not nuclear, large-scale hydro-electric, or so-called clean coal. All of these proposed solutions are narrow in vision and create numerous additional climate and

other negative side effects. Only a just, sustainable energy future diverse in energy options and seeking to realize the above-mentioned policy recommendations promotes true sustainable development.

Conclusion

As a coalition of grassroots groups that has been engaged in an enduring struggle against unsustainable and unjust energy policy in the U.S., we see a continuing, even elevated, relevance in the Bali Statement.^{xxviii} At the Bali preparation conference leading to the WSSD, the infamous question was uttered, “What do we do about the United States?” The Johannesburg Statement reflects our frustration in dealing with our own government with regards to energy sustainability.^{xxix} The peoples of the Appalachian coalfields have not experienced the brand of democracy that the U.S. touts. They have, instead, been marginalized and systematically abused. The Appalachian coalfield region has been called a “national sacrifice zone” because of the large-scale corporate exploitation of its timber, coal, and other resources. The profits deriving from these exports have overwhelmingly accrued to companies and investors that have no connection to the Appalachian coalfields.^{xxx} All of the environmental, public health and other “external” costs, on the other hand, have been left for the local communities to bear.

We agree with the logic in the NGO Position Paper’s title, that we desperately need a new paradigm in energy. Evoking the precautionary principle and adding the concept of “just” to sustainable are also important underlying principles of sustainable energy for the Coalfield Delegation. In closing, we specifically wish to add the following (shown in italics) to correct one major omission in the “CURES paper”:

With respect to item number seven, which reads, “to halt the development of nuclear facilities as they are neither safe, nor environmentally and economically sound and sustainable.” To remedy a major omission, we would add the following – *An equally urgent need is to halt the coal mining practice known as mountain top removal (MTR) and other similar forms of highly destructive fossil fuel extraction.*

- i See the Appalachian Coalition at <http://appcoalition.org/Appalachian%20Coalition%20for%20Just%20and%20Sustainable%20Communities/App%20Coalition.html>.
- ii "When Mountains Move" pg 104 by John G. Mitchell. *National Geographic*, March 2006 Volume 209 No. 3; "You Fight for What You've Got, Even If It's Only Worth a Dime," Jeff Goodell, *The Oprah Magazine*, July 2006 Volume 7, Number 7
- iii "Top 25 Censored Stories of 2006," Project Censored, the news that didn't make the news, http://www.projectcensored.org/censored_2006/index.htm. Accessed April 24, 2007.
- iv U.S. Geological Survey Professional Paper 1625-C, 2001
- v DOE/EIA-0584 (2005) Annual Coal Report 2005, released September 2006, http://www.eia.doe.gov/cneaf/coal/page/acr/acr_sum.html
- vi Cathie Bird and Lauren McGrath, "Carbon: From the Coalmine to the Climate Crisis: SOCM Stripmine Issues Committee 2007 Report on Energy and Coal."
- vii The Oklahoma City bombing was a terrorist attack on April 19, 1995 aimed at a U.S. government office complex in downtown Oklahoma City, Oklahoma (USA). The attack claimed 168 lives and left over 800 injured. Until the September 11, 2001 attacks, it was the deadliest act of terrorism on U.S. soil.
- viii Jeff Conant, Corp Watch, Speaking Dine to Dirty Power, Navajo Challenge New Coal-Fired Plant, April 3, 2007. <http://www.corpwatch.org/article.php?id=14435>
- ix Commentary, Mountaintop Removal: "Strip Mining on Steroids," Beth Wellington, November 12, 2006. <http://www.llrx.com/extras/mountaintopremoval.htm>
- x North Carolina has a population of 8.6 million according to the US Census 2005 estimate. <http://quickfacts.census.gov/qfd/states/37000.html>
- xi Madsen, Travis, and Elizabeth Ouzts, 2006 Air Pollution and Public Health in North Carolina. Pp. 42. Raleigh, NC: Environment North Carolina Research & Policy Center.
- xii CensusMapper, based on Bureau of Economic Analysis and U.S. Census data, January 2006. http://www.censusmapper.com/Appalachia/AP_Coal.htm
- xiii The Chair's summary report is available at <http://www.un.org/esa/sustdev/csd/csd14/documents/chairSummaryPartI.pdf> and Part II (High Level Segment at <http://www.un.org/esa/sustdev/csd/csd14/documents/chairSummaryPartII.pdf>.
- xiv For a characterization of this sector see, for example, the phrase "king CONG" referring to coal, oil, nuclear, gas, in Wasserman <http://www.commondreams.org/archive/2007/03/27/121/>)
- xv In fact, we have much in common with exploited peoples in other parts of the world. The Appalachian people have long been seen as a "sacrifice" for the "prosperity" of the many in the United States. Therefore, we know injustice well. Poverty in the coalmining areas of Appalachia has been persistent throughout the history of coalmining in the region.
- xvi Daly has written about this in several publications, such as *Steady State Economics*, *Beyond Growth*, and *Valuing the Earth: Economics, Ecology, Ethics*.
- xvii Technology transfer, finance, local governance, SPAC, and a host of related considerations apply here in this broad notion of implementation.
- xviii Although not a non-renewable resource draw down per se, large-scale hydro projects permanently alter the landscape, ecosystems, and human settlements.
- xix Given that the oil on the down slope of the peak oil curve is "dirty" it will exacerbate CO₂ emissions. For more on this claim, see, Joseph Romm's *Hell and High Water*.
- xx Stern Review: The Economics of Climate Change. http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm
- xxi U.S. Department of Energy and U.S. Environmental Protection Agency, "Carbon Dioxide Emissions from the Generation of Electric Power in the United States." July 2000.
- xxii Environmental Information Administration, "U.S. Carbon Dioxide Emissions from Energy Sources 2005 Flash Estimate." June 2006. Available at <http://www.eia.doe.gov/oiaf/1605/flash/pdf/flash.pdf>
- xxiii U.S. Department of Energy and U.S. Environmental Protection Agency, "Carbon Dioxide Emissions from the Generation of Electric Power in the United States." July 2000.
- xxiv Taken from "Dirty Coal Power" Fact Sheet, Sierra Club, <http://www.sierraclub.org/cleanair/factsheets/power.asp>
- xxv DOE/EIA-0584 (2005) Annual Coal Report 2005, released September 2006, http://www.eia.doe.gov/cneaf/coal/page/acr/acr_sum.html
- xxvi Scott Klara & Erik Shuster, "Tracking New Coal Fired Plants: Coal's Resurgence in Electric Power Generation," January 24, 2007. Department of Energy Powerpoint presentation. Accessed April 12, 2007. http://www.fossil.energy.gov/programs/powersystems/publications/General_Interest/ncp_012407.pdf
- xxvii "Clean coal" is more of a rhetorical framing and mass opinion campaign the industry has used than a concerted effort to make coal technologies clean. Never has the industry answered to the question of how it proposes to make extraction "clean."

- ^{xxviii} Read the Bali Statement at http://stopmtr.org/_Media/balistatement.pdf.
- ^{xxix} See the Johannesburg Statement at <http://www.citnet.org/files/JoburgNgoStatement.aspx>.
- ^{xxx} Wage labor has also suffered as capital has replaced labor in the machine-intensive MTR mining.